

CWSL  
cc: RA IDCA ISA



August 24, 2011

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611, Ben Franklin Station  
601 D Street  
Washington, D.C. 20044-7611  
DJ# 90-5-2-1-08242

Director, Air Enforcement Division  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
Ariel Rios Building [2242A]  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Regional Administrator  
U.S. EPA Region VII  
901 North 5th Street  
Kansas City, Kansas 66101

Section Chief, Compliance and Enforcement Section  
Bureau of Air and Radiation  
Kansas Department of Health and Environment  
1000 SW Jackson, Suite 310  
Topeka, Kansas 66612-1366

RE: *U.S. v. Westar Energy, Inc.*, 09-CV-2059 JAR/DJW  
Consent Decree Semi-Annual Progress Report

Dear Sir or Madam:

Attached hereto for your review is the Periodic Progress Report of Westar Energy, Inc. This report is submitted in compliance with Paragraph 113 of the Consent Decree in the above matter.

This Periodic Progress Report covers the period beginning January 1, 2011 through June 30, 2011. This Periodic Progress Report has been certified by Westar Energy Inc.'s

Designated Representative, John Bridson, who is the Responsible Official under the Title V Program for our Acid Rain Program Affected Sources.

Should you have any question regarding this Progress Report, please do not hesitate to contact me at 787-575-1614 or e-mail me at [Dan.Wilkus@westarenergy.com](mailto:Dan.Wilkus@westarenergy.com).

Sincerely,

WESTAR ENERGY, INC.

A handwritten signature in blue ink, appearing to read "D. Wilkus", is positioned above the printed name.

Daniel R. Wilkus, P.E.  
Director, Air Programs

**PERIODIC REPORT OF WESTAR ENERGY, INC.**  
**PURSUANT TO PART XI OF THE CONSENT DECREE**  
**ENTERED IN CIVIL ACTION NO. 09-CV-2059**  
**FOR THE PERIOD JANUARY 1, 2011 THROUGH JUNE 30, 2011**

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Westar Energy, Inc. ("Westar") submits this Progress Report pursuant to Sections VIII, XI and Appendix A of the Consent Decree entered in *United States of America and State of Kansas v. Westar Energy, Inc.*, Civil Action Number 09-CV-2059 (the "Consent Decree"). This Progress Report covers the period beginning January 1, 2011 through June 30, 2011 (the "Report Period").

In accordance Sections VIII, XI and Appendix A of the Consent Decree, Westar must provide the following information in this Periodic Report.

- a. *All information necessary to determine compliance with the requirements of the following paragraphs of the Consent Decree: Paragraphs 50 through 68 concerning NO<sub>x</sub> emissions monitoring, and the surrender of NO<sub>x</sub> Allowances; Paragraphs 69 through 81 concerning SO<sub>2</sub> emissions and monitoring, and the surrender of SO<sub>2</sub> Allowances; and Paragraphs 82 through 87 concerning PM emissions and monitoring. Westar shall include in these reports all data for which the bias adjustment factor has been excluded pursuant to Paragraphs 67 and 80;*
  - b. *All data recorded by the PM CEMS as required by Paragraph 91, and all period of monitor Malfunction, maintenance, and/or repair as provided in Paragraph 88;*
  - c. *All information relating to Super-Compliance NO<sub>x</sub> and SO<sub>2</sub> Allowances that have been generated in accordance with Paragraphs 64 and 76 through compliance beyond the requirements of the Consent Decree;*
  - d. *All information indicating that the installation and commencement of operation for a pollution control device may be delayed, including the nature and cause of the delay, and any steps taken by Westar to mitigate such delay; and*
  - e. *All information relating to the NO<sub>x</sub> Offset Requirements pursuant to Paragraph 121.*
  - f. *Written reports detailing the progress of each environmental mitigation plan project, including accounting of Project Dollars spent to date.*
- I. Compliance status with Paragraphs 50 through 68 – NO<sub>x</sub> Emissions and Monitoring, and Surrender of NO<sub>x</sub> Allowances.**

**Paragraph 50** – Westar was in compliance with the optimization requirements in Paragraph 50 during the Report Period.

**Paragraph 51** – Westar installed the required new Low NO<sub>x</sub> Combustion System on JEC Unit 2 during the spring 2011 maintenance outage and has begun continuously operating it.

**Paragraph 52** – Westar continuously operated the existing Low NO<sub>x</sub> Combustion Systems on JEC Units 1 and 3, and, after installation, the newly installed System on Unit 2, at all times the Units were operating, consistent with technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the systems during the Report Period in accordance with this paragraph.

**Paragraph 53-54** – Westar is on schedule to install and commence continuous operation of an SCR on one of the JEC Units no later than December 31, 2014.

**Paragraph 55** – On June 24, 2010, Westar engaged an engineering firm to assist Westar in testing, evaluating, and analyzing other NO<sub>x</sub> reduction technologies for JEC, including SNCR and other NO<sub>x</sub> reduction technologies. This evaluation is ongoing in accordance with this paragraph, and Westar anticipates the continued evaluation of alternate technologies through 2011 and 2012. During this Report Period, Westar entered into an agreement with an engineering firm and an SNCR vendor to install SNCR on JEC Unit 3 in Spring/Summer 2012. The installation of SNCR will allow for further evaluation of the NO<sub>x</sub> reduction capabilities of this technology.

**Paragraphs 56, 57, 58, 59** – These paragraphs contain future compliance requirements for which no update is required during this Report Period.

**Paragraph 60** – Westar was in compliance with the use of NO<sub>x</sub> Allowances requirements in Paragraph 60 during the Report Period.

**Paragraphs 61, 62, 63, 64, 65, 66** – These paragraphs contain NO<sub>x</sub> surrender requirements for which no update is required during this Report Period.

**Paragraphs 67 and 68** – These paragraphs contain NO<sub>x</sub> monitoring provisions pertaining to future compliance requirements for which no update is required during this Report Period.

**II. Compliance status with Paragraphs 69 through 81 – SO<sub>2</sub> Emission and Monitoring, and Surrender of SO<sub>2</sub> Allowances.**

**Paragraph 69** – Westar began monitoring and recordkeeping for the Plant-Wide 12-month rolling tonnage limitation for SO<sub>2</sub> on June 1, 2010. Westar began timely complying with the Plant-Wide 12-month rolling tonnage limitation for SO<sub>2</sub> on June 24, 2010, ninety days after Consent Decree entry. Westar was in compliance with the Plant-Wide 12-month rolling tonnage limitation on June 24, 2011, twelve months after the date of commencement of the limitation in

accordance with paragraph 177. Westar first demonstrated compliance with the limitation on June 1, 2011, as agreed to by USEPA Region VII and the Kansas Department of Health and Environment during Westar's initial kick-off meeting on April 28, 2010. On June 1, 2011, the SO<sub>2</sub> 12-month rolling tonnage emission rate recorded by Westar was 1,321 tons which is well under the 6,600 ton SO<sub>2</sub> 12-month rolling tonnage limitation contained in Paragraph 69. Attachment A contains the SO<sub>2</sub> 12-month rolling tonnage emission rate for Units 1, 2 and 3 during this Report Period.

**Paragraph 70** – During the Report Period, Westar continuously operated FGDs on all three Units to achieve and maintain a SO<sub>2</sub> 30-Day Rolling Average Unit Emission Rate for Units 1, 2 and 3 of no greater than 0.070 lb/mmBtu. Attachment B contains the SO<sub>2</sub> 30-Day Rolling Average Unit Emission Rate for Units 1, 2 and 3 during the Report Period.

**Paragraph 71** – During the Report Period, Westar operated each FGD at all times in which the Unit was operating, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the FGDs to minimize emissions to the extent practicable.

**Paragraph 72** – Westar was in compliance with the use of SO<sub>2</sub> Allowances requirements in Paragraph 72 during the Report Period.

**Paragraphs 73, 74, 75, 76, 77, 78 and 79** – These paragraphs contain SO<sub>2</sub> surrender requirements for which no update is required during this Report Period.

**Paragraph 80** – During the Report Period, Westar used SO<sub>2</sub> continuous emission monitors (CEMs) in accordance with Paragraph 80 in order to calculate the SO<sub>2</sub> 30-Day Rolling Average Unit Emission Rate for each Unit. Attachment C contains all hourly SO<sub>2</sub> data for which the bias adjustment factor has been excluded.

**Paragraph 81** – During the Report Period, Westar used CEMs in accordance with Paragraph 81 to calculate the Plant-Wide 12-Month Rolling Tonnage limitation for SO<sub>2</sub>. Attachment A contains the SO<sub>2</sub> 12-month rolling tonnage emission rate for Units 1, 2 and 3 during this Report Period.

### **III. Compliance Status with Paragraphs 82 through 87 – PM Emission and Monitoring.**

**Paragraph 82** – During the Report Period, Westar operated each ESP and FGD system on each JEC Unit, with the exception for Unit 2 as discussed below, to maximize the PM emission reductions at all times when the Units were in operation, consistent with technological limitations, manufacturers' specifications,



and good engineering and maintenance practices in accordance with this paragraph. On June 2, 2011, Westar requested permission to detune the Unit 2 ESP and FGD during PM CEMs and compliance assurance monitoring (CAM) testing. Westar is required by Paragraph 88 to install, correlate, maintain and operate a PM CEMs on one JEC Unit. It was necessary to detune both the ESP and FGD in order to conduct the correlation testing for the Unit 2 PM CEMs. On June 13, 2011, EPA responded to this request and noted that the test program is consistent with the goals of the Consent Decree, and acknowledged that the data to be developed requires temporarily detuning the control devices during testing. EPA directed Westar to file a report pursuant to Paragraph 115 if it had to deviate from Consent Decree limits. Westar timely provided this report, which was filed outside of this Report Period.

**Paragraphs 83** – Westar rebuilt the JEC Unit 2 ESP during the Spring 2011 maintenance outage. Performance testing was conducted on June 16, 2011, satisfying the requirement to conduct the testing within 270 days after rebuilding the ESP. The results of the compliance testing will be reported during the next Report Period. Westar is on schedule to complete the JEC Unit 1 ESP rebuild prior to December 31, 2013.

**Paragraph 84** – In addition to continuously operating the ESPs and FGD system at each JEC Unit, with the exceptions for Unit 2 noted above, Westar operated the Units in accordance with this provision and will demonstrate achievement of a PM emission rate of no greater than 0.030 lb/mmBTU, in the a stack test conducted in June 2011. The results of this testing will be reported during the next Report Period.

**Paragraphs 85, 86 and 87** - The required compliance and condensable testing as outlined in these paragraphs was conducted on June 14, 2011 (Unit 1), June 15, 2011 (Unit 3) and June 16, 2011 (Unit 2). The results of this testing will be reported during the next Report Period.

**IV. Compliance Status with Paragraphs 88 and 91 – all data recorded by PM CEMs, and all periods of monitor malfunction, maintenance and/or repair.**

**Paragraphs 88** – During this Report Period, Westar installed, correlated, maintained and operated a PM CEMs on Unit 2. The PM CEMs chosen by Westar is appropriate for the anticipated stack conditions and is capable of measuring PM concentrations on an hourly average basis. After the completion of the certification testing, Westar has continuously operated the PM CEMs at all times when the Unit it serves is operating during this Report Period.

**Paragraph 89** – On January 18, 2011, Westar submitted to KDHE and EPA a plan for the installation and correlation of the PM CEMs. The plan was submitted no later than 90 days prior to installation of the PM CEMs.

**Paragraph 90** – On March 4, 2011, Westar submitted to KDHE and EPA a proposed Quality Assurance/Quality Control (QA/QC) protocol for the PM CEMs. The plan was submitted no later than 45 days prior to installation of the PM CEMs.

**Paragraph 91** – Attachment D contains data recorded by the PM CEMs during this Report Period. The data is expressed in lb/mmBtu on a 3-hour rolling average basis.

**V. All information related to Super-Compliant NO<sub>x</sub> and SO<sub>2</sub> Allowances that Westar claims to have generated in accordance with Paragraphs 64 and 76.**

**Paragraphs 64 and 76** - These Paragraphs contain requirements for which no update is required during this Report Period. No compliance related information is available and necessary to report at this time.

**VI. All information indicating that the installation and commencement of operation for a pollution control device may be delayed.**

During this Report Period, there were no indications of any delays of the installation or operation of any pollution control devices required by this Consent Decree.

**VII. All information relating to the NO<sub>x</sub> Offset Requirements pursuant to Paragraph 121.**

This Paragraph contains future compliance requirements for which no update is required during this Report Period. No compliance related information is available and necessary to report at this time.

**VIII. Compliance Status with Appendix A and the USEPA-approved Environmental Mitigation Project Plans**

Pursuant to the correspondence between EPA and Westar dated November 12, 2010, Westar is submitting its report related to environmental mitigation projects (the "Projects") consistent with its schedule for periodic reports in Paragraph 113 of the Consent Decree. The end year report contained a more detailed report concerning the implementation of the Projects. This report (mid-year report) is a shorter report concerning these Projects. Westar will proceed on this schedule for all future periodic reports. That letter resolved the inconsistency regarding reporting requirements in Paragraphs 107 and 113 of the Consent Decree.

In accordance with Appendix A, Paragraph I.C, Westar provides the following information detailing the progress of each Project it has elected. Westar will provide an annual accounting of Project Dollars spent in the end year report. In correspondence between Westar and EPA dated July 26, 2010, Westar elected to participate in the



Clean Diesel Retrofit Project, the Third Party Wind Generation Project and the Fleet Conversion Project. Westar is also reserving \$600,000 for a potential plug-in hybrid infrastructure project and will be submitting a plan in accordance with Appendix A of the Consent Decree. Westar elected not to pursue or submit a plan concerning an advanced truck stop electrification project. Westar will satisfy its Environmental Mitigation Project Plan commitments with the above-referenced projects. This report provides a brief status update concerning the ongoing Project plans for the Report period.

### **Fleet Conversion Project Plan**

On September 2, 2010, USEPA approved Westar's Fleet Conversion Project Plan.

During this Report Period, Westar purchased and took delivery of all four of the electric cars referenced in Section 3.4 of the Plan. Specifically, Westar purchased and took delivery of two Chevrolet Volts and two Nissan Leafs.

Westar has arranged to take delivery of five Chevrolet Silverados hybrid pickup trucks, referenced in Section 3.1.4 of the Plan, by the end of 2011. Westar is scheduled to take delivery of four Ford Transit Connect electric vehicle, referenced in Section 3.3 of the Plan, by the end of 2011. Westar is scheduled to take delivery of four hybrid/electric bucket trucks, referenced in Section 3.1.3 of the Plan, during the first half of 2012.

With the constantly changing and emerging hybrid/electric vehicle technology, Westar is re-evaluating the anticipated schedule contained in Appendix A of the Plan and, if any changes are necessary in the project schedule, Westar will provide USEPA with an update as part of the semi-annual progress report for the last six months of 2011 due by the end of February 2012.

Westar is on schedule to complete the entire Fleet Conversion Project by March 26, 2015.

### **Third Party Wind Generation Project Plan**

On September 2, 2010, USEPA approved Westar's Third-Party Wind Generation Project Plan.

During the previous Report Period, on December 16, 2010, Westar entered into an Agreement with the Unified School District (USD) 501 in Topeka, Kansas, to donate at least \$200,000 and up to \$250,000 toward the purchase and installation of a 100 kW electric generation wind turbine ("wind turbine"). As required by the Agreement, on December 21, 2010, Westar contributed \$200,000 to USD 501. The wind turbine will be located at USD 501's property known as the "KANZA Business and Technology Park" located in Topeka, Kansas. The Agreement requires the USD 501 to use commercially



reasonable efforts to complete the wind turbine installation no later than March 26, 2015.

Westar is on schedule to complete the entire Third Party Wind Generation Project by March 26, 2015.

### **Clean Diesel Retrofit Project Plan**

On September 2, 2010, USEPA approved Westar's Clean Diesel Retrofit Project Plan.

During the Report period, Westar selected an outside consultant to help effectively manage this project. On April 4, 2011, Westar entered into a contract with the Kansas Association of Conservation and Environmental Education (KACEE) to facilitate this project on Westar's behalf. KACEE is an organization that is well positioned to work with all stakeholders and help Westar navigate through the retrofitting process.

Westar is on schedule to complete all diesel school bus retrofits by March 26, 2013.

This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.

  
John Bridson  
Vice President, Generation

**Attachment A**  
**SO2 12-Month Rolling Average Unit Emission Rate**  
**January 1, 2011 through June 30, 2011**

## Average Data

Plant: Westar Energy - Jeffrey Energy Center

Interval: 12 Month

Type: Roll

Report Period: 01/01/2011 00:00 Through 06/30/2011 23:59

Time Online Criteria: 1 minute(s)

Source		JEFFREY
Parameter (Unit)		SO2TONS (TONS)
01/01/11	00:00	1,164.2021
02/01/11	00:00	1,112.4895
03/01/11	00:00	1,129.2911
04/01/11	00:00	1,133.6312
05/01/11	00:00	1,238.3580
06/01/11	00:00	1,320.5922

Average	1,183.0940
Minimum	1,112.4895
Maximum	1,320.5922
Summation	7,098.5641
Included Data Points	6
Total number of Data Points	6

F = Unit Offline

E = Exceedance

I = Invalid

M = Maintenance

Report Generated: 08/25/11 16:20

C = Calibration

S = Substituted

T = Out Of Control

\* = Suspect

Report Version 3.1.1120



**Attachment B**  
**SO2 30-Day Rolling Average Unit Emission Rate**  
**January 1, 2011 through June 30, 2011**